

10/22/84

13

Distribute for action as follows:

DOCKETED  
USNRC

- 1) Design Review (G. Rogers) - Review as part of Design Review Task. Return to Quality Group a statement of acceptability (i.e., inspection information is sufficient for Design Review Group and no further inspections are required) or provide further detailed inspection/criteria, and add to Task Description "review information provided on TDR-Q-329", for each component affected. 84 NOV -8 A9:31
- 2) SHO (J. Kammerer) - distribute for information.
- 3) LSU/QA - review for applicability and issue LDR as needed.
- 4) M. Schuster - obtain LDR number as issued for component file and closure.

**NUCLEAR REGULATORY COMMISSION**

Docket No. 50-322 Official Exh. No. D-74

In the matter of LILCO

Staff	IDENTIFIED	✓
Applicant	RECEIVED	✓
Intervenor	REJECTED	
Cont'g Off'r	DATE	<u>10-22-84</u>
Contractor	Witness	✓
Other		
Recorder	<u>WKB</u>	

8412130277 841022  
PDR ADOCK 05000322  
G PDR



## LIQUID PENETRANT EXAMINATION REPORT

Page 2 of 2

MATERIAL		TYPE <i>N/A</i>	FABRICATED PROCESS	<input type="checkbox"/> WELDED	<input checked="" type="checkbox"/> CAST	<input type="checkbox"/> WORKED
CROSS SECTION THICKNESS		MAX MIN <i>N/A</i>	PIPE DIA. <i>N/A</i>	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> GROUND
					<input type="checkbox"/> AS FABRICATED	<input type="checkbox"/> OTHER
B. INSPECTION PROCEDURE		SURFACE/MAT'L. TEMP. <i>84°</i>		MATE. NO. <i>7-11-70</i>		MWR/RH. No.
No. <i>6.2 REV 1</i>						
INSPECTION MATERIALS		BRAND	DESIGNATION	BATCH NO.		
1. PRE-CLEANER		<i>MAGNAFLUX</i>	<i>SKC-NF/70-73</i>	<i>841025</i>		
2. PENETRANT		<i>SPOTCHECK</i>	<i>SKC-NF/54-5</i>	<i>815180</i>		
3. EMULSIFIER AND/OR REMOVER		<i>MAGNAFLUX</i>	<i>SKC-NF/70-72</i>	<i>841025</i>		
4. DEVELOPER		<i>MAGNAFLUX</i>	<i>SKC-NF/70-72</i>	<i>834041</i>		
5. POST EXAMINATION CLEANER		<i>MAGNAFLUX</i>	<i>SKC-NF/70-73</i>	<i>841025</i>		
C. EVALUATION						
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY <i>CYLINDER #1 LOWER PORTING</i> <i>SEE SKETCH ON PAGE 1 OF 2</i>						
REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.						
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)			
1 SEE SKETCH	.15"	LINEAR	REJECT, 19 1/2" LONG, 15" DIAMETER, SHARP EDGES, 2" DIA.			
2 SEE SKETCH	.25"	LINEAR	REJECT, 10 1/4" LONG, 25" DIAMETER, SHARP EDGES, 2" DIA.			
3 SEE SKETCH	6"	LINEAR	REJECT, 18 1/2" LONG, 6" DIAMETER, SHARP EDGES, 2" DIA.			
4 SEE SKETCH	8.75"	INTERMITTENT LINEAR	REJECT, 4' LONG, 8.75" DIAMETER, SHARP EDGES, 2" DIA.			
D. ACCEPTANCE CRITERIA		12		OPERATOR <i>[Signature]</i> Level <i>[Signature]</i> Date <i>3/21/54</i>		
E. ATTEST		[Signature] <i>[Signature]</i> DECEASED REGISTERED PERSONNEL				

CYLINDER #1 LOWER PORTING

SYSTEM

PLANT/LOCATION

2

JOB NUMBER  
11500.37

DATE  
7/21/71

LOCATION(S)

REFERENCE  
DOCUMENT(S)

DG- 101

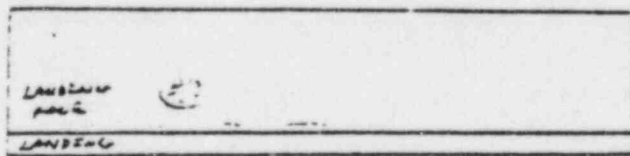
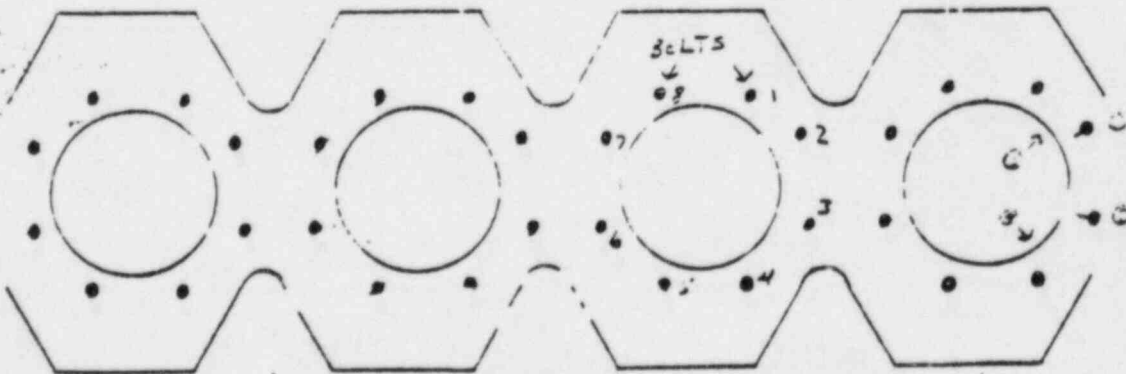
I.P. NO. 10 REV. 5 CHG C

TER 0 DR-52  
0-95

LILCO LP PROC. C.2 REV. 1

DWG. NO. n/a

COMPONENT NO. C3-315A

ITEM	QTY	DESCRIPTION(S) AND INSPECTION REMARK(S)
2	1	<p>PERFORMED LP FLAMING ON CYL #1 UNDER BURNING. UNSAT.</p> <div data-bbox="457 880 1090 1034"><p>LANDING FACE</p><p>LANDING</p></div> <p>CYLINDER = 4</p> <p>= 3</p> <p>= 2</p> <p>= 1</p>  <div data-bbox="386 1668 1212 1864"><p>LANDING FACE</p><p>INTERMEDIATE INCH</p><p>4 1/2 INCH</p><p>12 INCH</p><p>LANDING</p></div> <p>M&amp;TE NO. _____</p>

REVIEWED: H. J. Stiller

QUALITY CONTROL INSPECTION  
Stiller

DATE  
7/21/71

PAGE  
1

(3)

# LIQUID PENETRANT EXAMINATION REPORT

PAGE 2 of 2

MATERIAL <i>CARBON STEEL</i>		TYPE <i>N/A</i>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
CROSS SECTION THICKNESS	MAX <i>N/A</i> MIN	GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER:	PIPE DIA. <i>N/A</i>
		SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER

B. INSPECTION PROCEDURE No. <i>6.2 Rev 1</i>	SURFACE/MAT'L. TEMP. <i>84°</i>	M&TE. NO. <i>7-11-705</i>	MWR/RR. No.
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INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<i>ALCOA 111X</i>	<i>SKC-NF/ZC-7P</i>	<i>84A025</i>
2. PENETRANT	<i>527 ALCOA</i>	<i>SKC-NF/SKL-5</i>	<i>81E150</i>
3. EMULSIFIER AND/OR REMOVER	<i>ALCOA 111X</i>	<i>SKC-NF/ZC-7B</i>	<i>84A025</i>
4. DEVELOPER	<i>ALCOA 111X</i>	<i>SKD-NF/ZD-9B</i>	<i>83H041</i>
5. POST EXAMINATION CLEANER	<i>ALCOA 111X</i>	<i>SKC-NF/ZC-7P</i>	<i>84A025</i>

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY

*CYLINDER #2 LINEAR INDICATION*

*SEE SKETCH ON PAGE 1 OF 2*

## C. EVALUATION

REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PEI "L" INENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
<i>2 SEE SKETCH</i>	<i>1.25"</i>	<i>LINEAR</i>	<i>.65" DOWN LANDING FACE REJECT, 11" LINEAR FROM 2" HOLE TO LANDING</i>
<i>2 SEE SKETCH</i>	<i>9/16" .65"</i>	<i>LINEAR</i>	<i>.5" DOWN LANDING FACE REJECT, .15" LINEAR ON ROST OF LANDING</i>
<i>3 SEE SKETCH</i>	<i>1/16"</i>	<i>LINEAR</i>	<i>REJECT 18" .65" LINEAR ON LANDING FACE</i>
<i>4 SEE SKETCH</i>	<i>1.1"</i>	<i>LINEAR</i>	<i>REJECT 16" LINEAR ON LANDING FACE</i>

ACCEPTANCE CRITERIA

*4.2*

OPERATOR

Level *I*

Date *3/21/84*

E. ATTEST

*[Signature]*

*II*

*3/21/84*

COMPONENT I.D. *03-315A*

SYSTEM

PLANT/LOCATION

*DG-101*

*(4)*



11500.37

3/21/04

LOCATION(S)

REFERENCE DOCUMENT(S)

DG- 101

I.P. NO. 10 REV. 5 CHG 0

TER 0 DR-52 Q-95

LILCO LP PROC. 6.2 REV. 1

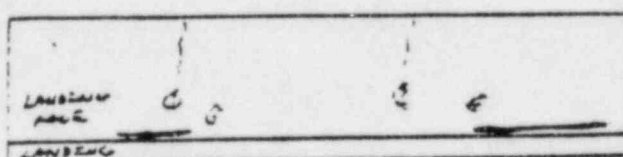
DWG. NO. N/A

COMPONENT NO. 03-315 A

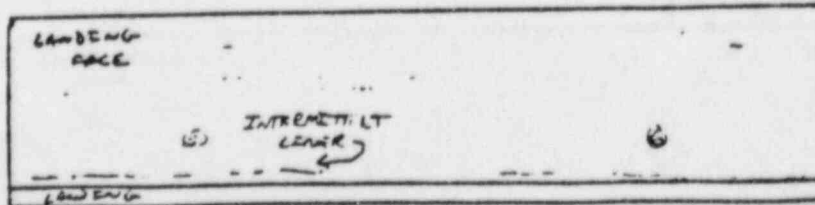
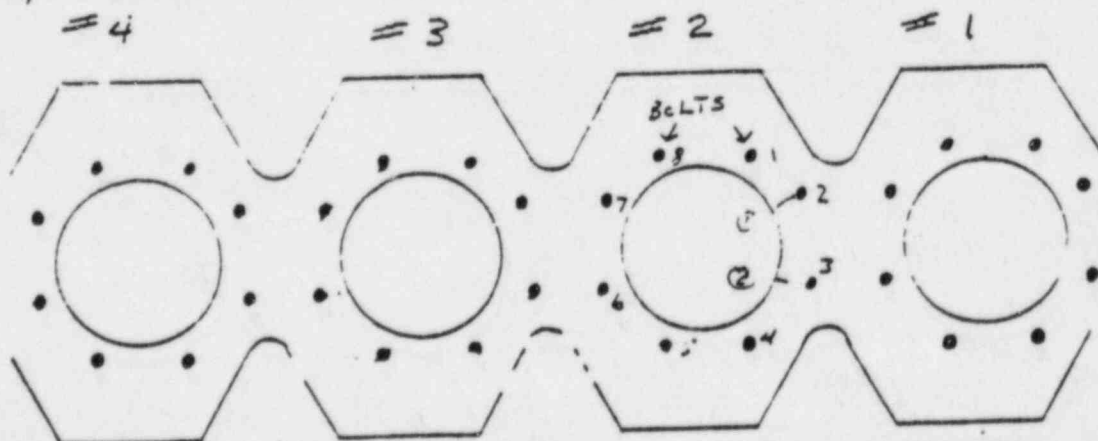
ITEM IDTY

DESCRIPTION(S) AND INSPECTION REMARK(S)

2 1 PERFORMED LP FIRM ON CYL #2 LINE LANDING UNSAT.



CYLINDER #4



M&TE NO.

REVIEWED N.S. 3/21/04

QUALITY CONTROL NSPCC. ENG

DATE

PAGE

3-21-04

# LIQUID PENETRANT EXAMINATION REPORT

Page 2 of 2

TYPE <u>N/A</u>		FABRICATED PROCESS	<input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED
GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER:			
PIPE DIA. <u>N/A</u>	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND	
		<input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER	
PROCEDURE <u>6.2 REV 1</u>	SURFACE/MAT'L. TEMP. <u>500</u>	M&T. NO. <u>7-11-705</u>	MWR/RR. No.
INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.
1. PRE-CLEANER	<u>ALCOA 200X</u>	<u>SKC NF/20-7B</u>	<u>84AC25</u>
2. PENETRANT	<u>ALCOA 200X</u>	<u>SKC NF/20-7B</u>	<u>84AC25</u>
3. EMULSIFIER AND/OR REMOVER	<u>ALCOA 200X</u>	<u>SKC NF/20-7B</u>	<u>84AC25</u>
4. DEVELOPER	<u>ALCOA 200X</u>	<u>SKC NF/20-7B</u>	<u>84AC25</u>
5. POST EXAMINATION CLEANER	<u>ALCOA 200X</u>	<u>SKC NF/20-7B</u>	<u>84AC25</u>

COMPONENT I.D. 6.3 3.54

SYSTEM

SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY

EXAMINER 3 ALCOA 200X

SEE SKETCH ON OTHER SIDE

## C. EVALUATION

REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AND COMMENT AS NECESSARY)
1 SEE SKETCH	19"	LEAKAGE	REJECT 20% LEAKAGE 10% LEAKAGE 10% LEAKAGE
2 SEE SKETCH	36"	INDICATED LEAKAGE	REJECT 20% LEAKAGE 10% LEAKAGE 10% LEAKAGE
3			
4			
ACCEPTANCE CRITERIA	4.2	OPERATOR <u>John H. H. H.</u>	Level <u>1</u> Date <u>2/2/72</u>

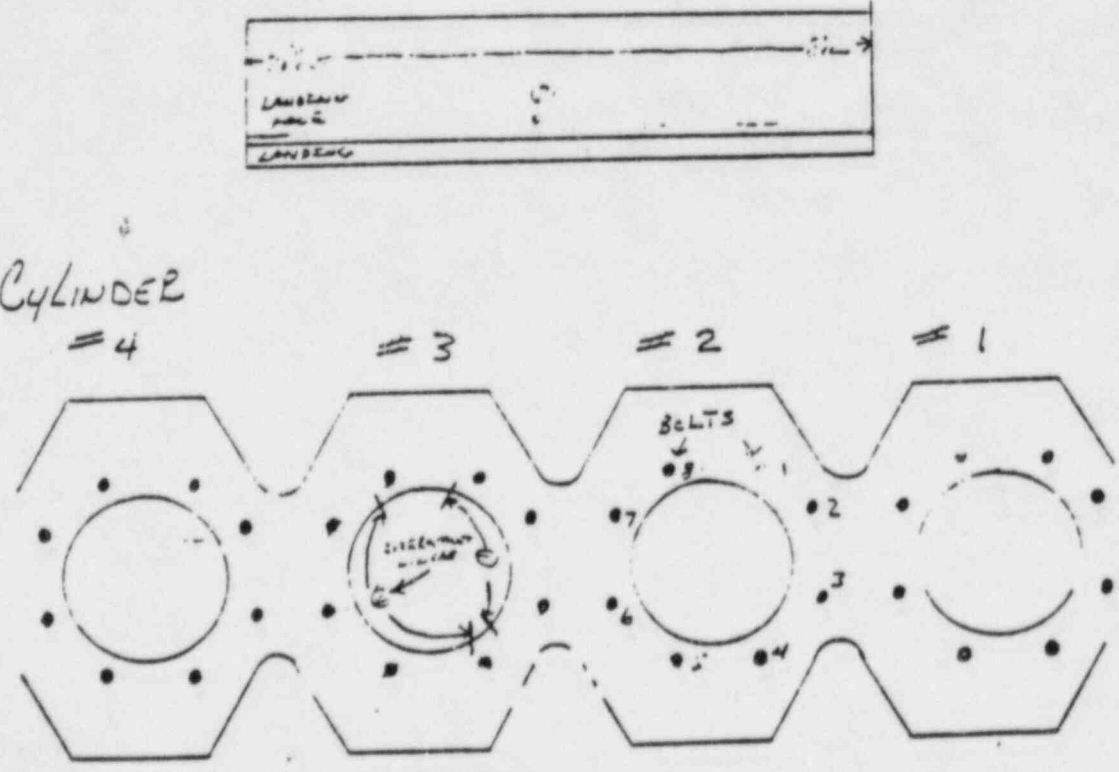
PLANT/LOCATION

## E. ATTEST

John H. H. H. 2/2/72  
 DIRECTOR OF INSPECTION DEPARTMENT 1 1 1

6

ELEMENT NO. <u>03-315A</u>	LOCATION(S) <u>DG-10.1</u>	REFERENCE DOCUMENT(S) <u>DR-52</u> I.P. NO. <u>10</u> REV. <u>5</u> CHG <u>0</u> TER # <u>Q-95</u> LILCO LP PROC. <u>6.2</u> REV. <u>1</u> DWG. NO. <u>N/A</u>
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ITEM	DESCRIPTION AND INSPECTION REMARKS
2	<p>PERFORMED EXTENSIVE CYLINDER LEAK TESTING. UNSAT.</p>  <p>LANDING PAGE</p> <p>M&amp;TE NO. _____</p>

REVIEWED 4.5.5.7.6

QUALITY CONTROL INSPEC/ENG

DATE

PAGE

1/1/84

1 of 2

# LIQUID PENETRANT EXAMINATION REPORT

Page 2 of 2

MATERIAL <i>SAE 5160 STEEL</i>		TYPE <i>N/A</i>	FABRICATED PROCESS <input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	PT CROSSHATCH MARKS 100X MAGNIFICATION	CONFORM I.D. 02-315-1
CROSS SECTION THICKNESS MAX <i>N/A</i> MIN		GEOMETRY <input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER:			
PIPE DIA. <i>N/A</i>		SURFACE CONDITION <input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER			
B. INSPECTION PROCEDURE No. <i>6.2 1001</i>		SURFACE/MAT'L. TEMP. <i>75°</i>	M&T. NO. <i>2 11 715</i> MWR/RR. No.		
INSPECTION MATERIALS	BRAND	DESIGNATION	BATCH NO.	SYSTEM 100X	
1. PRE-CLEANER	<i>ALCOHOL</i>	<i>SEC-05/70-78</i>	<i>144025</i>		
2. PENETRANT	<i>50% 100% 10</i>	<i>SEC-05/70-78</i>	<i>144025</i>		
3. EMULSIFIER AND/OR REMOVER	<i>ALCOHOL</i>	<i>SEC-05/70-78</i>	<i>144025</i>		
4. DEVELOPER	<i>ALCOHOL</i>	<i>SEC-05/70-78</i>	<i>144025</i>		
5. POST EXAMINATION CLEANER	<i>ALCOHOL</i>	<i>SEC-05/70-78</i>	<i>144025</i>		
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY <i>See sketch on other side</i>					
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.			
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT/REJECT, AT JUDGMENT AS NECESSARY)		PLANT/LOCATION 20-101
1 SEE SKETCH	2.1"	LEAKAGE	1.5" LEAKAGE LOW PRESSURE 100X REJECT, 100X		
2 SEE SKETCH	1.7"	LEAKAGE	1.5" LEAKAGE LOW PRESSURE 100X REJECT, 100X		
3 SEE SKETCH	1.1"	LEAKAGE	1.5" LEAKAGE LOW PRESSURE 100X REJECT, 100X		
4					
D. ACCEPTANCE CRITERIA		OPERATOR <i>John J. [Signature]</i> Level <i>1st</i> Date <i>7/21/81</i>			
I ATTEST		[Signature] DIRECTOR OF QUALITY ASSURANCE			



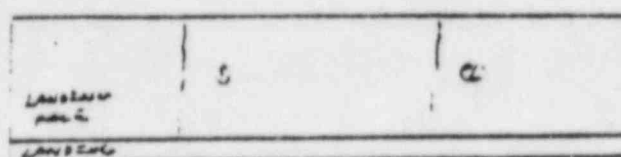
LOCATION(S)

REFERENCE  
DOCUMENT(S)DG- 111I.P. NO. 10 REV. 5 CHG 0TER 0 95  
DR-52LILCO LP PROC. 6.2 REV. 1DWG. NO. 111ITEM NO. 03-315A

ITEM QTY

DESCRIPTION(S) AND INSPECTION REMARK(S)

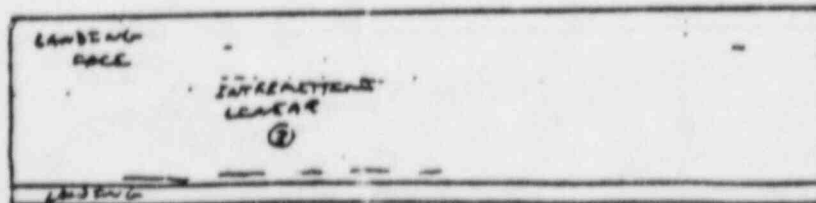
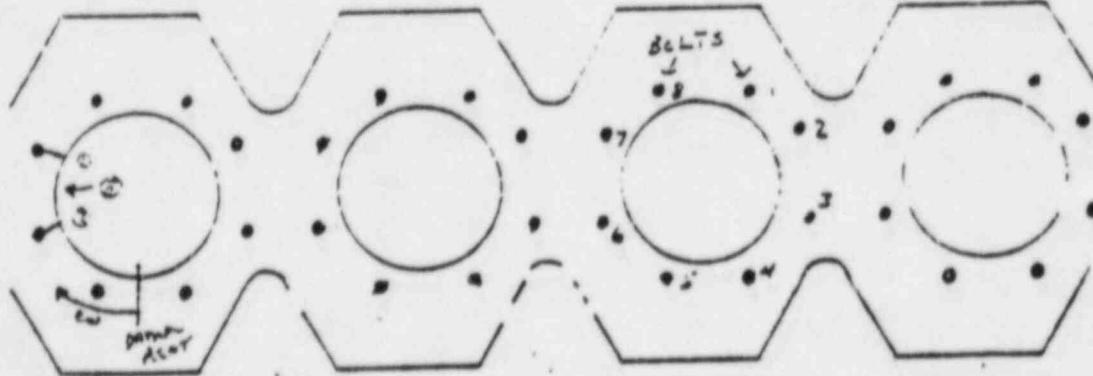
2 1 REFERRED TO DRAWING IN CYLINDER FOR LENS AND LENS HOLDER

CYLINDER  
= 4

= 3

= 2

= 1



MATE NO.

QUALITY CONTROL - INSPECTION ENG

DATE

PAGE

REVIEWED: H.S. BAKERFORWARDED1/11/5411

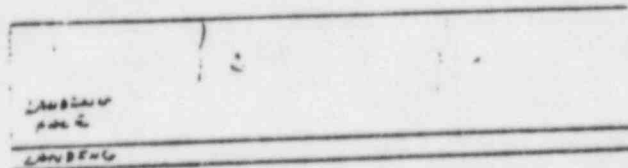
A. MATERIAL		TYPE <u>N/A</u>	FABRICATED PROCESS	<input type="checkbox"/> WELDED <input checked="" type="checkbox"/> CAST <input type="checkbox"/> WORKED	PT CHINA'S RIVER LINE'S BRIDGE COMPONENT I.D. 03-31511 SYSTEM PLANT/LOCATION D-101
CROSS SECTION THICKNESS	MAX MIN	GEOMETRY	<input type="checkbox"/> PIPE <input type="checkbox"/> PLATE <input type="checkbox"/> ROD <input checked="" type="checkbox"/> OTHER:		
		PIPE DIA. <u>N/A</u>	SURFACE CONDITION	<input checked="" type="checkbox"/> MACHINED <input type="checkbox"/> GROUND <input type="checkbox"/> AS FABRICATED <input type="checkbox"/> OTHER	
B. NDE PROCEDURE No. <u>1001</u>		SURFACE/MAT'L. TEMP. <u>70</u>		M&T. NO. <u>7112</u>	MWR/RR. No. <u>      </u>
INSPECTION MATERIALS		BRAND	DESIGNATION	BATCH NO.	
1. PRE-CLEANER					
2. PENETRANT					
3. EMULSIFIER AND/OR REMOVER					
4. DEVELOPER					
5. POST EXAMINATION CLEANER					
SKETCH OR OTHER DETAIL: USE OTHER SIDE IF NECESSARY					
C. EVALUATION		REPORT BELOW THOSE INDICATIONS OBSERVED AND THE PERTINENT INFORMATION REQUIRED. WHERE ADDITIONAL SPACE IS REQUIRED USE OTHER SIDE.			
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT, REJECT AND COMMENT AS NECESSARY)		
1 SEE SKETCH	1.2"	LEAKAGE	REJECT, 12" dia. hole in flange		
2 SEE SKETCH	1.6"	LEAKAGE	REJECT, 1.6" dia. hole in flange		
3 SEE SKETCH	.25"	LEAKAGE	REJECT, 12" dia. hole in flange		
4					
D. ACCEPTANCE CRITERIA		4.2		OPERATOR <u>John Doe</u> Level <u>1</u> Date <u>10/1/94</u>	
E. ATTEST		SIGNATURE <u>John Doe</u> DATE <u>10/1/94</u>			

LOCATION(S)

REFERENCE  
DOCUMENT(S)DG- 101I.P. NO. 10 REV. 5 CHG. CTER 0 DR-52  
Q-45LILCO LP PROC. 62 REV. 1DWG. NO. N/ACOMPONENT NO. 13-3-5A

ITEM QTY

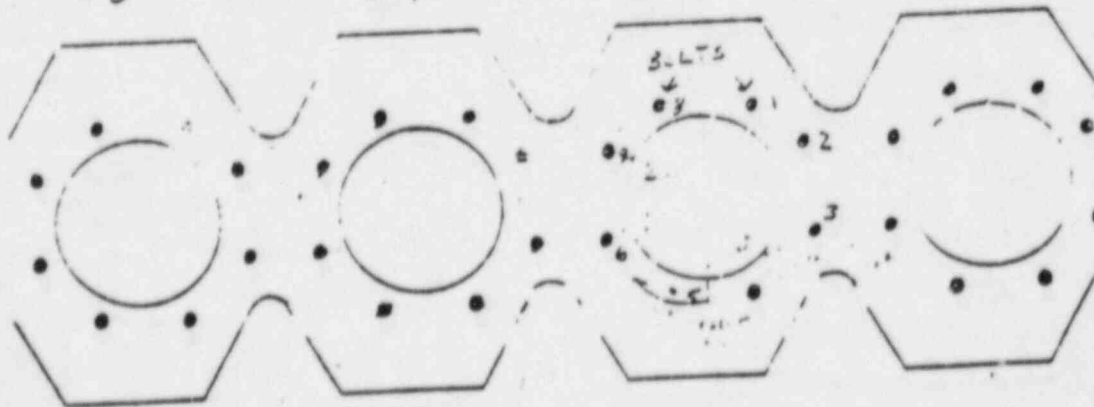
DESCRIPTION AND INSPECTION REMARKS

CYLINDER  
#8

#7

#6

#5



M&amp;TE NO. \_\_\_\_\_

QUALITY CONTROL INSPECTOR

DATE 3/2/84

PAGE

1 of 2REVIEWED: J. S. Smith  
3/2/84